

REMARKS/ARGUMENTS

Claims 1-30 are pending in the present application. Claims 1-3, 11-15, 17 and 19-23 have been amended herewith. The listing of the claims beginning on page 2 of this response replaces all prior versions, and listings, of claims in the application.

Claims 1-3, 11-15, 17 and 19-23 have been amended in this application. Applicants are not conceding in this application the subject matter removed from amended claims are not patentable over the art cited by the Examiner. The present claim amendments are only for facilitating expeditious prosecution the application. Applicants respectfully reserve the right to pursue these and other claims in one or more continuations and/or divisional patent applications.

I. 35 U.S.C. § 112, Second Paragraph

Claims 11, 12, 14, 15, 17, 19 and 20 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter, which applicants regard as the invention. This rejection is respectfully traversed.

Applicants have amended such claims such they are not in means-plus-function format.

Therefore the rejection of Claims 11, 12, 14, 15, 17, 19 and 20 under 35 U.S.C. § 112, second paragraph has been overcome.

II. 35 U.S.C. § 101

Claims 21-30 stand rejected under 35 U.S.C. § 101 as being directed towards non-statutory subject matter. This rejection is respectfully traversed.

With respect to Claim 21 (and dependent Claims 22-30), Applicants have amended such claim to comply with judicial precedent regarding proper statutory subject matter. For example:

“When functional descriptive material is **recorded on some computer-readable medium** it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized. Compare *In re Lowry*, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994)(claim to data structure **stored** on a computer readable medium that increases computer efficiency held statutory) and *Warmerdam*, 33 F.3d at 1360-61, 31

USPQ2d at 1760 (claim to data structure *per se* held nonstatutory)” (emphasis added by Applicants).

Applicants disavow that portion of the scope of computer readable medium Claims 21-30 that would otherwise cover transitory signals. Claim scope covering other forms of computer readable media (besides transitory signals) that allow Claims 21-30 to meet the requirements of 35 U.S.C. 101 is not intended to be disavowed by the statements herein.

Therefore the rejection of Claims 21-30 under 35 U.S.C. § 101 has been overcome.

III. 35 U.S.C. § 102, Anticipation

Claims 1-6, 11-16 and 21-26 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Rochford et al. (U.S. Patent No. 6,663,312), hereinafter “Rochford”. This rejection is respectfully traversed.

To anticipate, the prior art must teach all the claim elements and the claimed arrangement. Section 102 embodies the concept of novelty—if a device or process has been previously invented (and disclosed to the public), then it is not new, and therefore the claimed invention is “anticipated” by the prior invention. . . . Because the hallmark of anticipation is prior invention, the prior art reference—in order to anticipate under 35 U.S.C. § 102—must not only disclose all elements of the claim within the four corners of the document, but must also disclose those elements “arranged as in the claim.” Focusing for a moment on *arrangement* – to anticipate, the reference must teach “all of the limitations arranged or combined in the same way as recited in the claim.” *Net MoneyIn v. Verisign*, 545 F.3d 1359 (Fed. Cir. 2008).

With respect to Claim 1, Applicants have amended such claim to clarify the antecedent basis for certain claimed elements, as well as adding the features of Claim 2. As amended, such claim recites “allowing an administrative user to dynamically reconfigure the set of logical networks within the distributed data processing system to introduce a new scope by logically dividing a pre-existing scope of the set of scopes”. As can be seen, an administrative user is allowed to dynamically reconfigure the set of logical networks within the distributed data processing system to introduce a new scope by logically dividing a pre-existing scope.

In rejecting Claim 2 (whose features are now a part of amended Claim 1), the Examiner alleges that Rochford teaches all aspects of such claim at col. 11, lines 12-49 and col. 18, lines 11-23. Applicants show that there, Rochford states:

Yet further, a pictorial representation 236 of the list of contents 216 is preferably provided within the second window 217. Referring to FIG. 2A, in this example, a pictorial representation 236 consisting of a map of the world is depicted with each of the children ("ASIA", "AUSTRALIA", "EUROPE", "NORTH AMERICA", etc.) are **shown** within the second window 217. In other figures that will be described in more detail herein below, this pictorial representation does not have to be a geographical region, but could alternatively be a logical interpretation of the list of contents 216. For example within FIGS. 3A through 3C, logical views for the customer attribute layer are **shown** as the pictorial representation. In this case, a small circle within a larger circle is used, the smaller circle containing the parent of the list of contents 216 and the larger circle being divided into slices that represent each of the children within the list of contents 216. For instance, in FIG. 3A, "ALL" is written within the small circle to represent "ALL CUSTOMERS" and "EDUC", "S" "GOV" and a medical symbol are written within the larger circle to represent "EDUCATIONAL", "FINANCIAL", "GOVERNMENT", and "HEALTH CARE" respectively. As a child from the list of contents 216 is selected, the symbol or abbreviation representing the child is written into the small circle with its children surrounding it in the larger circle. Preferably, the pictorial representation is done in a manner **which allows the selection of a network feature from the list of contents by clicking on the pictorial representation**. For example, within the pictorial representation 236 displayed within FIG. 3A, a user could click on the symbol "S" in order to select the network feature "FINANCIAL". Preferably, it is user selectable to hide the pictorial representation and/or to hide the list of contents. In the illustrated examples of FIGS. 2 through 6, a "hide map" screen switch 238 is provided which when selected redraws the display without the map and **shows** a screen switch "show map" in place of the "hide map" screen switch. Similarly, a "hide list" screen switch 240 may be provided.

(Rochford col. 11, lines 12-49)

There are a number of key advantages of the GUI 120 according to preferred embodiments of the present invention. One key advantage is that such a GUI allows a user to view and manage a complex network by isolating the information relevant to the user at a particular moment. The dividing of the network into a plurality of attribute layers such as services, customers, network entities, and geographical locations, enables the network manager to decide **what to view, what**

to hide from view, and what to highlight. The further preferable features of the bookmarks option, history options, and monitoring feature uses the advantages of the layer cake structure to make the network manager's job more efficient.

(Rochford col. 18, lines 11-23)

Contrary to the claimed features of logically dividing a pre-existing scope to introduce a new scope – where each scope is uniquely assigned to a management customer – this cited passage describes an ability to view/show various network components based on user-specified filtering criteria. This ability to view sub-portions of an overall network based on filtering criteria does not teach an ability to reconfigure the underlying logical networks, as claimed. Importantly, this Rochford ability to ‘view’ subportions of a network does not describe reconfiguring underlying ‘scopes’ that are each uniquely assigned to a management customer. Therefore, it is urged that Claim 2 has been erroneously rejected. As Claim 1 has been amended to include the features of such Claim 2, it is similarly urged that Claim 1 is not anticipated by the cited reference.

The distinctions between the teachings of the cited reference and the features of Claim 1 are somewhat analogous to the differences between a web-browser and an HTML-editor, where a web-browser allows user to view HTML-based content, but not to edit the actual underlying HTML itself. In contrast, an HTML-editor does allow for editing underlying information in a similar manner to the claimed logical networks ‘dynamically reconfigure’ capability.

Applicants initially traverse the rejection of Claims 2-6 for reasons given above with respect to Claim 1 (of which Claims 2-6 depend upon).

Further with respect to Claim 2, Applicants have amended such claim in accordance with the Specification description on pages 29-32. As amended, Claim 2 recites “managing the each scope by a respective IP driver that has dedicated control over objects within its responsible scope such that other IP drivers do not have control over the objects”. It is urged that the cited reference does not contemplate such IP drivers that have exclusive/dedicated control of objects within their respective scopes, and therefore it is further urged that Claim 2 is not anticipated by the cited reference.

Further with respect to Claim 4, such claim recites “dynamically reconfiguring the distributed data processing system by logically moving a scope between management customers”. The Examiner alleges that Rochford teaches such scope movement between management customers at col. 11, lines 12-49. The cited passage has already been reproduced

and characterized above, and describes an ability of a user to specify filtering criteria such that only a sub-set of an overall network is displayed on a graphical user interface (GUI). Such user ‘viewing’ does not teach *logically moving a scope between customers*, as claimed. Instead, networks and portions thereof are ‘viewed’. Thus, it is further urged that Claim 4 has been erroneously rejected as being anticipated by the cited reference.

Applicants initially traverse the rejection of Claims 11-16 and 21-26 for similar reasons to those given above with respect to Claim 1.

Applicants further traverse the rejection of Claims 12 and 22 for similar reasons to the further reasons given above with respect to Claim 2.

Applicants further traverse the rejection of Claims 14 and 24 for similar reasons to the further reasons given above with respect to Claim 4.

Therefore, the rejection of Claims 1-6, 11-16 and 21-26 under 35 U.S.C. § 102(e) has been overcome.

IV. 35 U.S.C. § 103, Obviousness

Claims 7, 8, 17, 18, 27 and 28 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Rochford in view of Hamner et al. (U.S. Patent No. 5,960,439), hereinafter “Hamner”. This rejection is respectfully traversed.

The Examiner bears the burden of establishing a prima facie case of obviousness based on prior art when rejecting claims under 35 U.S.C. § 103. *In re Fritch*, 972 F.2d 1260, 23 U.S.P.Q.2d 1780 (Fed. Cir. 1992). *In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992). Only if that burden is met, does the burden of coming forward with evidence or argument shift to the applicant. *Id.* All words in a claim must be considered in judging the patentability of that claim against the prior art. MPEP 2143.03; *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970). If the examiner fails to establish a prima facie case, the rejection is improper and will be overturned. *In re Fine*, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). In the absence of a proper *prima facie* case of obviousness, an applicant who complies with the other statutory requirements is entitled to a patent. *See In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992).

Applicants initially urge error in the rejection of Claim 7 (and dependent Claim 8) for similar reasons to those given above with respect to Claim 1 (of which Claim 7 depends upon).

Further with respect to Claim 7 (and dependent Claim 8), such claim recites “logically organizing the endpoint objects, system objects, and network objects within a set of scopes, wherein each endpoint object, each system object, and each network object is uniquely assigned to a scope such that scopes do not logically overlap”. The objects are logically organized within a set of scopes such that *each object is uniquely assigned to a scope such that the scopes do not logically overlap*.

The Examiner alleges that Hamner teaches all such aspects of Claim 7 at Figures 1-5; col. 4, line 66 – col. 5, line 33; col. 7, lines 6-40; and col. 9, line 55 – col. 10, line 40. Applicants urge that the cited passage at col. 9, line 55 – col. 10, line 40 actually describes that its devices *can belong to more than one group*. For example, per col. 10, lines 6-18, Hamner states:

In the device window 201, a top level of the tree-structure will contain a line for each defined group. Expanding a line (e.g., by double-clicking with the mouse) will reveal, at the next level, the individual members of the group. **Note that a device may belong to more than one group.** Two classes of logical groups are provided for: 1) device types, 2) and user-created groups. Device types are predefined logical groups that correspond to physical device types. The discovery modules 312 can automatically create these groups and assign group membership. User-created groups are created by the LAN administrator who assigns group membership.

Therefore, these cited passages do not teach/suggest the claimed feature of “each network object is *uniquely assigned to a scope* such that scopes do not logically overlap” (emphasis added), since the devices *may belong to more than one group* per the teachings of the cited Hamner reference. Thus, it is further urged that Claim 7 (and dependent Claim 8) has been erroneously rejected due to such prima facie obviousness deficiency pertaining to objects being uniquely assigned to a scope.

Further with respect to Claim 8, such claim recites “wherein dynamic discovery is limited to a scope assigned to a particular management customer”. The cited Hamner passages at col. 6, lines 50-67 and col. 7, lines 6-30 that are cited in rejecting Claim 8 do not describe a ‘management customer’, and therefore these cited passages cannot describe either (1) a ‘scope’ assigned to a *particular management customer*, or (2) limiting dynamic discovery to such a (non-taught) ‘scope’. Thus, it is further urged that Claim 8 has been erroneously rejected due to such

additional prima facie obviousness deficiencies pertaining to the ‘scope’ of a particular management customer and limited dynamic discovery to such a ‘scope’.

Applicants initially traverse the rejection of Claims 17, 18, 27 and 28 for similar reasons to those given above with respect to Claim 7.

Applicants further traverse the rejection of Claims 18 and 28 for similar reasons to the further reasons given above with respect to Claim 8.

Therefore, the rejection of Claims 7, 8, 17, 18, 27 and 28 under 35 U.S.C. § 103(a) has been overcome.

V. 35 U.S.C. § 103, Obviousness

Claims 9, 10, 19, 20, 29 and 30 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Rochford in view of Hougaard et al. (U.S. Patent No. 6,216,130), hereinafter “Hougaard”. This rejection is respectfully traversed.

Applicants initially urge error in the rejection of Claim 9 (and dependent Claim 10) for similar reasons to those given above with respect to Claim 1 (of which Claim 9 depends upon).

Further, the Examiner states in rejecting Claim 9:

“Regarding claim 9, Rochford discloses substantially all the limitations in claim 1” (emphasis added), per page 9 of the present Office Action dated 4/14/2011.

Accordingly, by the Examiner’s own admission, Rochford does not anticipate Claim 1 since it does not teach all of the limitations arranged or combined in the same way as recited in Claim 1 – as acknowledged by the Examiner themselves by their ‘*substantially all*’ statement. Thus, it is further shown that Claim 1 has been erroneously rejected as being anticipated by the cited reference.

Still further with respect to Claim 9 (and dependent Claim 10), such claim recites “determining whether to allow a reconfiguration operation requested by an administrative user in accordance with security authorization parameters associated with an administrative user”. The Examiner alleges that Hougaard teaches all such security features with respect to a reconfiguration operation at col. 7, lines 1-62 and col. 8, lines 7-29. Applicants show that there, Hougaard states:

By compiling data references 22, the administrator establishes an index of useable data structures located at disorganized data sources 30 and makes the index available to any desired number of users in the organization. Referring again to the example of a public utility, the administrator can organize data references 22 to allow customer service representatives, maintenance dispatchers, and other interested users to conveniently retrieve and view the geographic information likely to be of importance to the public utility. In the absence of data references 22 and other information stored by administrator application 10, individual users in the organization would be required to locate and organize the geographic data 12 and other data structures, thereby engaging in inefficient duplication of effort.

In addition to merely locating referencing data structures 12, 14, 16, and 18, the administrator application 10 allows an administrator to establish relationships between various data structures or combinations of data structures. To illustrate the concept of establishing relationships between data structures, an administrator in a public utility may identify three data structures. A first geographic data structure may include an encoded map of the streets, municipal boundaries, and other features of a portion of the geographic region of service of the public utility. A second geographic data structure may include, for example, a representation of the infrastructure of the public utility. A tabular data structure may list customers of the public utility along with the customers' addresses. The administrator, in this example, decides that users within the public utility would be interested in viewing a map wherein the images of the two geographic data structures are combined. Moreover, the administrator may determine that users in the public utility would be interested in viewing or otherwise using the tabular customer data when viewing the map associated with the two geographic data structures.

In order to facilitate the combined use of the two geographic data structures and the tabular data structure, the administrator can specify the relationship between the data structures in relationship information 32. A detailed description of one technique for organizing and establishing relationships between data structures is presented below in reference to FIG. 2.

Referring to FIG. 1, the administrator application 10 also compiles other information that allows users to access the appropriate data indexed by data references 22. The administrator can configure context filters 34, which permits the users to receive only the geographic and other data that is relevant to them at that time that the requests for data are made. The administrator can also

configure user access filters 36, which constitute a security mechanism for allowing only authorized users to access the geographic and other data. The administrator can compile application specific data 38, which specify application specific paths or mode information required to display tabular data or other types of data. The application specific data 38 allow tabular and other data to be conveniently displayed to the user without the user having to manually specify the application specific paths or mode information. In summary, the information compiled by the administrator using administrator application 10 organizes data structures 12, 14, 16, and 18 located at disorganized data sources 30 in a manner to make them accessible to users of the system of FIG. 1.

(Hougaard col. 7, lines 1-62)

Referring again to the example of the public utility, an employee operating user application 20 may select a particular set of data structures by selecting, for example, one of the projects or views defined in relationship information 32. The selected set of data structures may comprise any combination of geographic data structures 12, tabular data structures 14, application program 16, and other data 18. Interface controller 42 communicates the user's selection to administrator application 10. User access filters 36 determine whether the user is authorized to retrieve the selected information based on authorization parameters associated with the user. The appropriate address information 24, metadata 26, and display information 28 compiled in data references 22 are passed to the interface controller 42 via context fillers 34. Depending on the identity of the user making the request, the time of the request, or other factors, context filters 34 selectively allow the relevant portions of the requested data references 22 to be transmitted to interface controller 42. If needed, appropriate portions of application specific data 38 are also sent to interface controller 42. At this point, user application 20 has obtained the information needed to retrieve, display, and interrelate the data structures requested by the user.

(Hougaard col. 8, lines 7-29)

Contrary to providing the claimed security restrictions *pertaining to a network administrator*, these cited passages instead describe that an administrator can restrict end-user access to resources. These cited passages do not describe reconfiguration restrictions that pertain to the actual administrator themselves, as claimed (per Claim 9 – “*determining whether to allow a reconfiguration operation requested by an administrative user* in accordance with security authorization parameters associated with an administrative user”). Thus, it is further urged that

Claim 9 (and dependent Claim 10) has been erroneously rejected due to such additional prima facie obviousness deficiencies.

Further with respect to Claim 10, such claim recites “limiting reconfiguration operations requested by an administrative user to scopes assigned to a particular management customer”. The Examiner alleges that Hougaard teaches all such customer-assigned scopes at col. 7, lines 43-62. Applicants show that there, Hougaard states:

Referring to FIG. 1, the administrator application 10 also compiles other information that allows users to access the appropriate data indexed by data references 22. The administrator can configure context filters 34, which permits the users to receive only the geographic and other data that is relevant to them at that time that the requests for data are made. The administrator can also configure user access filters 36, which constitute a security mechanism for allowing only authorized users to access the geographic and other data. The administrator can compile application specific data 38, which specify application specific paths or mode information required to display tabular data or other types of data. The application specific data 38 allow tabular and other data to be conveniently displayed to the user without the user having to manually specify the application specific paths or mode information. In summary, the information compiled by the administrator using administrator application 10 organizes data structures 12, 14, 16, and 18 located at disorganized data sources 30 in a manner to make them accessible to users of the system of FIG. 1.

(Hougaard col. 7, lines 43-62)

Contrary to the claimed administrator restrictions recited in Claim 10 – where an administrator’s reconfiguration operations are *limited to scopes assigned to a particular customer* – this cited passage instead describes that an administrator restricts end-user access to data. This cited passage does not describe (1) restrictions pertaining to the administrator themselves, or (2) a limitation pertaining to the ‘scopes’ assigned to a particular customer, as claimed. Thus, it is further urged that Claim 10 has been erroneously rejected.

Applicants initially traverse the rejection of Claims 19, 20, 29 and 30 for similar reasons to those given above with respect to Claim 9.

Applicants further traverse the rejection of Claims 20 and 30 for similar reasons to the further reasons given above with respect to Claim 10.

Therefore, the rejection of Claims 9, 10, 19, 20, 29 and 30 under 35 U.S.C. § 103(a) has been overcome.

VI. Conclusion

It is respectfully urged that the subject application is patentable over the cited references and is now in condition for allowance. The Examiner is invited to call the undersigned at the below-listed telephone number if in the opinion of the Examiner such a telephone conference would expedite or aid the prosecution and examination of this application.

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Respectfully submitted,

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